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Testimony
Before the Committee on Resources
United States House of Representatives

Hearing on the Impact of the Rio Grande Silvery Minnow on New Mexico
Belen, New Mexico

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Mr. Chairman and Members of the Committee, I appreciate your invitation to participate in today's field hearing concerning the Rio Grande silvery minnow, the decision of the U.S. Court of Appeals for the Tenth Circuit in Rio Grande Silvery Minnow v. Keys, and their impacts on New Mexico.

My name is Alletta Belin, and I represent the plaintiffs in that lawsuit. I will address the lawsuit and its impacts on our state. My testimony addresses the following points:

· The valuable but declining state of the Middle Rio Grande ecosystem, and the perilous status of the Rio Grande silvery minnow, which is on the brink of extinction;

· The overall importance and vulnerability of river ecosystems, including the many rivers in the western United States affected by federal water projects;

· The history and purposes of the two federal water projects that operate in the Middle Rio Grande: the Middle Rio Grande Project and the San Juan-Chama Project;

· The failure of agencies and water users to address the urgent problems in the Middle Rio Grande that led to a crisis and ultimately to the filing of Rio Grande Silvery Minnow v. Keys;

· Developments in the lawsuit that spurred many minnow and river restoration efforts and led up to the Tenth Circuit opinion;

· The meaning and implications of the Tenth Circuit opinion, which is consistent with similar rulings from the Ninth Circuit, and which creates incentives to solve the problems, while still allowing flexibility in how they are solved;

· The positive economic effects of actions to protect the silvery minnow on the Middle Rio Grande and the rest of the Upper Rio Grande Basin.

Background on the Middle Rio Grande and the Rio Grande Silvery Minnow

The Middle Rio Grande, home to the last remaining population of the endangered Rio Grande silvery minnow, is a unique and critical stretch of river. Prior to human influence, the Middle Rio Grande was a perennially flowing river, with a braided channel that would migrate back and forth across the floodplain. It supported a dense cottonwood and willow forest, or "bosque," which provided the habitat for a wealth of native and migrating bird and wildlife species. Flow levels in the river were seasonal, with greatest flows in the late spring during peak runoff from snow melt, and in mid to late summer from rain runoff. Reports from the first Spanish settlers of the sixteenth century paint a magnificent picture of the river: "[A] large and mighty river" that "flows through a broad valley planted with fields of maize and dotted with cottonwood groves" (Alvarado, 1540). . . "[A]long the river [near San Marcial] banks there were many cottonwood groves and some patches of white poplars four leagues [about 20 miles] wide" (Espejo, 1583) . . . "A deep river" and "the river with much water" (Castano de Sosa, 1590) . . . "[S]wift and beautiful, surrounded by numerous

meadows and farms" (Obregon, late 1500's).

Even now, the Middle Rio Grande boasts the biggest intact stretch of native cottonwood-willow bosque left anywhere in the Southwest. But that bosque is deteriorating as the cottonwoods seeded in the 1940's die without being replaced and non-native species continue to invade. The Middle Rio Grande is also home to about two-thirds of New Mexico's six hundred wildlife species, but we are losing those species. Fourteen animal species in the Middle Rio Grande are on the state list of threatened and endangered species; two are on the federal list: the Rio Grande silvery minnow and the Southwestern willow flycatcher. These problems have been exacerbated by the current drought, and stand to get worse as the valley's population increases and as Albuquerque commences using water from the Rio Grande for its water supply.

The silvery minnow was once one of the most abundant and widespread fishes in the Middle Rio Grande, occurring in the Rio Grande from Espanola to the Gulf of Mexico and in the Pecos River. At times it was so abundant the river would literally turn silver with minnows. The silvery minnow is now the only remaining member of a suite of four endemic Rio Grande mainstream cyprinids that once inhabited the Middle Rio Grande. Of approximately seventeen fish species that were native to the Middle Rio Grande, at least seven have been extirpated or have become extinct (shovelnose sturgeon, American eel, speckled chub, Rio Grande shiner, phantom shiner, Rio Grande bluntnose shiner, blue catfish).

The silvery minnow's population has dropped precipitously in recent years. By 1994, it was reduced to 5% of its historic range, and remained only in the stretch of the Rio Grande between Cochiti Dam and Elephant Butte Reservoir. In 1994, the U.S. Fish and Wildlife Service listed the Rio Grande silvery minnow as an "endangered" species. In determining to list the silvery minnow as endangered, the FWS cited the loss and fragmentation of aquatic habitat, the narrowing the species' range, the impacts of irrigation withdrawals and dewatering of its habitat, and other factors.

Since its 1994 listing, the silvery minnow population has continued to plummet. The most recent silvery minnow monitoring report prepared for the federal government found that by late 2002, the number of silvery minnows found in the river "had declined to the lowest levels ever recorded." (Dudley, Gottlieb & Platania, 2002 Population Monitoring of Rio Grande Silvery Minnow, Hybognathus Amarus, Final Report," (June 10, 2003), p.vi. (See Exhibit 1 attached hereto, excerpts of that report; Exhibit 2, graph showing decline of silvery minnow 1994-2002)). Like earlier monitoring studies, this report found the highest densities of silvery minnow in the lowest stretch of the Middle Rio Grande, between San Acacia Diversion Dam and Elephant Butte Reservoir. The lowest densities of silvery minnow were found above Isleta Dam, in the stretch of river that runs through Albuquerque. The 2002 Final Report concluded:

The cumulative effects of years of river drying, downstream displacement, and habitat degradation continue to be manifested by the decline of the Rio Grande silvery minnow. The marked and alarming declines in abundance of Rio Grande silvery minnow recorded in 2002 during this population monitoring study provide the strongest evidence that the problems that led to the precipitous decline of this species have not been remedied. A renewed focus on issues that directly affect the immediate survival of this species in the wild is essential. Removal of instream barriers that prevent Rio Grande silvery minnow from repopulating upstream reaches, the need to maintain increased and variable flow throughout downstream reaches, and restoration and reconnection of the historical floodplain are paramount issues that need to be resolved to assure the continued persistence of this species.

Id.

The declines in the Middle Rio Grande ecosystem parallel declines experienced in rivers throughout the western United States affected by federal water projects. Freshwater ecosystems are critical to all life on earth; at least 12% of the world's animal species inhabit freshwater environments. (Nature Conservancy, Freshwater Initiative (2002)). In the United States, approximately 303 fish species, or 37% of freshwater fish, are at risk of extinction, and at least seventeen species have already gone extinct. (Nature Conservancy, "The Declining Status of Freshwater Biodiversity and National and International Water Resources" (2002)). About 123 species of fish, mollusks, crayfish and amphibians in North America alone are extinct due to the building of dams, water pollution, and loss of wetlands. (Id.) As of 1993, in the seventeen western states, 68 fish species were listed as endangered and threatened, and "physical habitat alterations," including water diversions, dams, reservoirs, channeling, and watershed disturbances, was the factor cited most frequently as contributing to the decline of these fish species. (Moore et al., "Water Allocation in the American West: Endangered Fish Versus Irrigated Agriculture," 36 Nat. Resources J. 319 (1996)). As of 1995, 184 species that rely on habitat affected by federal water projects run by the Bureau of Reclamation were either listed or

proposed for listing under the Endangered Species Act. (Id.)

Rio Grande Silvery Minnow v. Keys

Two federal water projects affect flows in the Middle Rio Grande: the Middle Rio Grande Project and the San Juan-Chama Project. The Middle Rio Grande Project, approved by Congress in 1948 and 1950, included a vast federal overhaul and expansion of the dams and irrigation works of the then-bankrupt Middle Rio Grande Conservancy District (MRGCD), and authorized construction of major flood control and levee facilities (e.g., Abiquiu and Cochiti Dams) in the Middle Rio Grande. The San Juan-Chama Project, authorized by Congress in 1962, called for construction of tunnels to transport water from the Colorado River watershed across the Continental Divide into the Rio Grande watershed, as well as construction of Heron Reservoir, on a tributary to the Rio Chama, to hold project water before it is released to entities contracting for the water. The central idea behind the San Juan-Chama Project was to offset past and future streamflow depletions in the Middle Rio Grande, and to provide water or the future growth of the area. The Project provides on average 96,200 a-f/year of transported water into the Rio Grande Basin.

According to its own records, MRGCD serves about 170 full-time farms and 2,000 part-time farms. Approximately 97% of the 50-55,000 acres irrigated in MRGCD are forage, i.e., alfalfa, hay, irrigated pasture, and silage or ensilage. Six pueblos lie within the boundaries of MRGCD and are served by its irrigation works. During the late 1980's and 1990's, MRGCD's records indicate that it was diverting close to 600,000 a-f/yr of water – upwards of 11 a-f/acre/year. The State Engineer stated in 2001 that reasonable beneficial use would probably amount to only about 7.2 a-f/acre/year – about one-third less than MRGCD had been diverting.[1]

In April 1996, MRGCD's diversion of all the water in the Rio Grande at Isleta Dam killed many thousands of silvery minnow. FWS subsequently estimated that MRGCD's actions at that time killed nearly half of the entire remaining population of silvery minnows. That disastrous kill-off of minnows gave rise to several years of dialogue among agencies, environmental groups, and other stakeholders about how river management might be changed to avoid future similar calamities and to ensure protection of the silvery minnow and the related river ecosystem. Unfortunately, while the debate was healthy and much information was exchanged, water management by federal and state agencies and MRGCD did not change in any significant respect. Minnow populations continued to spiral downward. The agencies' minnow protection program was nothing more than a standing offer to buy any spare water that anyone offered to sell for the minnow. There was neither a short-term nor a long-term program to protect or recover the silvery minnow and the habitat on which it depends. Moreover, there had never been any consultation between the Bureau of Reclamation, the Army Corps and the FWS to analyze what water operations actions could be taken to protect federally-listed species such as the silvery minnow, even though such consultation was required by the Endangered Species Act.

Only after three years of discussions failed to change Middle Rio Grande water operations and address the problems of the silvery minnow did several environmental groups file the lawsuit against the Bureau of Reclamation and the Army Corps of Engineers known as Rio Grande Silvery Minnow v. Keys. Absent this litigation, there is every reason to believe that the silvery minnow would be extinct by now and the Middle Rio Grande river and bosque habitats would be far more degraded than they are today.

Court-ordered mediation in the case during the drought summer of 2000 resulted in two agreed court orders that kept up flows in the river and avoided the anticipated river drying that would have wiped out the vast majority of remaining silvery minnows. At that time, upstream reservoirs were full to the brim and Albuquerque literally had no place to store water and no use for its San Juan-Chama Project water. Albuquerque was able to lend substantial amounts of water to the Bureau for the minnow that will be paid back in future years when Albuquerque most needs the water. In addition, the litigation and mediation caused the Bureau of Reclamation to initiate a number of other steps to aid the minnow and river flows, such as pumping water from the Low Flow Conveyance Channel back to the river. As a result, the silvery minnow survived that drought summer.[2]

Numerous developments grew out of the litigation over the next two years, including entry of a Conservation Water Agreement between the State and the United States that provided for storage of up to 100,000 a-f of water to be used for the minnow over a three year period, and issuance of a Biological Opinion by FWS on June 29, 2001, that allowed for significant drying of portions of the Middle Rio Grande containing the last viable silvery minnow populations.

In late 2002, another drought year, the Bureau of Reclamation announced that it would be unable to comply with the minimum river flows required by the June 29th BO. Once again faced with the prospect of massive drying of the only parts of the Rio Grande harboring the last silvery minnows, plaintiffs went back to court to seek release of a limited amount of San Juan-Chama Project water from Heron Reservoir to comply with the BO. Unfortunately, by the time plaintiffs were informed of the anticipated BO violation, MRGCD had used up all of its stored water and thus could not help to comply with the BO. Virtually the only water available to bring about compliance was the water in Heron Reservoir. Chief U.S. District Judge James Parker ruled in the plaintiffs' favor, although in order to limit the amount of water to be released, he allowed the U.S. to meet lower flow levels than those required by the BO. This court order, as well as an order issued several months earlier, triggered the appeal to the Tenth Circuit that resulted in the June 12, 2003 Tenth Circuit decision in Rio Grande Silvery Minnow v. Keys.

Tenth Circuit Opinion

In the view of the plaintiffs, the Tenth Circuit ruling in Rio Grande Silvery Minnow v. Keys is not significantly different from the Ninth Circuit rulings in O'Neill v. U.S., 50 F.3d 677 (9th Cir. 1995); NRDC v. Houston, 146 F.3d 1118 (9th Cir. 1998); and Klamath Water Users Protective Ass'n v. Patterson, 204 F.3d 1206 (9th Cir. 2000). It is not a radical proposition to hold that federal water contracts must be interpreted in a manner consistent with the ESA. Indeed, in the plaintiffs' view, it would be a dramatic roll-back of the ESA to hold the contrary: that federal water contracts should be given a narrow interpretation that excludes the possibility of managing water to avoid jeopardy to listed species when possible. Such an interpretation would not only be a radical departure from current federal law. It would also be a death warrant for our western rivers and the freshwater ecosystems which they support – almost all of which are greatly affected by federal water projects run by the Bureau of Reclamation and the Army Corps of Engineers.

The main thing that differentiates this case from the earlier Ninth Circuit cases is that it concerns, in part, federal water that is contracted to municipalities for public water supplies. Unlike irrigators, who generally are used to living with significant variations in their water supply, municipalities want to be able to count on a constant supply. Although municipalities' water needs are different from farmers' water needs, their federal water contracts (at least the municipal San Juan-Chama Project contracts) are not materially different from farmers' federal water contracts. Hence, unless and until municipal water contracts are drafted differently, we believe it is unlikely that courts will find a rationale to treat cities' water contracts differently from irrigation districts' water contracts.

If it is the consensus among the federal government, water users, and the public that municipal contracts for water from federal projects should be given different treatment vis-à-vis the ESA than irrigators' contracts, then the contracts should be revised and other measures should be adopted to protect listed species from the effects of the water deliveries. Reversing the Tenth Circuit's holding by way of backroom appropriations riders that are strongly opposed by important stakeholders and that never receive any public scrutiny or congressional debate does not serve the full panoply of public interests at stake in this case.

Some people have claimed that the Tenth Circuit's decision is a federal grab of individuals' water rights. This is not true. The federal government is involved in the Rio Grande because it has funded and built dams, reservoirs, irrigation ditches, and levees throughout the Rio Grande, to the tune of hundreds of millions of dollars. All water users in the Middle Rio Grande have benefited from these massive federal investments. MRGCD, for example, paid back (over 50 years, interest-free) only a fraction of the money that the federal government invested in its irrigation and levee system through the Middle Rio Grande Project. Farmers got an excellent bargain from the federal government: massive federal dollars in return for federal ownership and control over the irrigation system.

By the same token, those entities that entered into contracts with the federal government for San Juan-Chama Project water didn't get an absolute guarantee that a set amount of water would be delivered every year, no matter what. There is no way the federal government would or should have provided such a carte blanche promise. Rather, they got only what the contracts provided: a promise that water would be provided to the extent available and consistent with federal law – including the ESA.

There is nothing fundamentally wrong with how the ESA has been applied to water management on the Middle Rio Grande or on other rivers in New Mexico and around the west. In most instances, the ESA is applying, adjustments are being made, and problems are being solved without overwhelming obstacles. Indeed, there are many success stories around the west where application of the ESA has brought rivers and fisheries back from the brink of death, to the great benefit not only of the species but also of the people

in the area. In many of the rivers in California's Central Valley, for example, salmon runs have rebounded from mere handfuls to tens of thousands. These rivers would be barren and dead if the ESA had not been applied just as the Tenth Circuit is applying it to the Rio Grande.

Many of the proposals to "fix" how the ESA applies to water management would result in the death of our rivers. We must be careful in the areas where it is particularly difficult to mesh the ESA with meeting people's water needs, to craft solutions that do not simply throw out the ESA and kill our rivers.

In those few instances that pose particularly difficult problems, such as the Middle Rio Grande, court decisions won't fix the problems, nor will quick congressional ESA exemptions. The only lasting solution will come when the parties come together and collaborate to solve the problems in a way that meaningfully implements the ESA.

Efforts to Collaborate To Protect the Silvery Minnow and the Rio Grande

One of the most positive effects of the Tenth Circuit opinion is that it has spurred intensive efforts to negotiate a collaborative solution to the problems on the Middle Rio Grande. The specifics of those negotiations, led by Governor Richardson, are confidential. We can point out, however, our firm belief that no such negotiations would be taking place in the absence of the court's opinion. Rather, in all likelihood, the agencies and water users would simply throw their hands up and declare, just as they did a year ago, that they were unable to comply with the BO and unable to preserve the silvery minnow. Without a court opinion creating incentives to come up with creative solutions, and with no adverse consequences stemming from a failure to protect the silvery minnow, the river would inevitably dry up and die, taking much of the bosque with it. It would not be long before the Middle Rio Grande turned into the barren dry ditch that we see further downstream, where the Rio Grande used to flow through El Paso.

Economic Effects of the Endangered Species Act on the Upper Rio Grande Basin

Earlier this year, economists from New Mexico State University and Siena College in New York released a study on the economic effects of water releases for the silvery minnow. (See Exhibit 3 attached hereto; excerpts from Frank A. Ward and James F. Booker, "Economic Costs and Benefits of Instream Flow Protection For Endangered Species in an International Basin" (2003). The economists examined the effects of implementing minimum flow requirements for the silvery minnow in the Middle Rio Grande that are higher than the minimum flows required by the most recent Biological Opinion issued by FWS in March, 2003. They found that "[p]rotecting instream flows for the silvery minnow produces positive market economic benefits for agriculture and M&I uses of water for the upper Rio Grande Basin." (Id., p.17). They estimated the overall economic benefit to the New Mexico/Texas area of instream flows for silvery minnow protection to total over $1.5 million/yr ($1,522,000). Specifically, they determined that New Mexico agriculture would receive economic benefits in the amount of $68,000/year, while New Mexico M&I uses would lose benefits amounting to $24,000/year, for a net overall benefit to New Mexico of $44,000/yr. Texas agriculture would receive $203,000/yr of economic benefit, and Texas M&I users would gain $1,275,000/yr, for an overall gain to Texas of $1,478,000/year.

Moreover, these estimates of positive economic impacts from increased flows do not even account for the benefits -- both economic and other -- to the State that have resulted from the Rio Grande Compact delivery credits coming from those increased flows. Those credits have been especially valuable since Article VII of the Rio Grande Compact went into effect and storage of native water would not have been possible absent relinquishment of Compact credits.

In addition to these projected economic impacts resulting from increased river flows for the silvery minnow, there have been other positive economic impacts on the region from efforts to restore the silvery minnow and its river habitat. Federal funding (together with state and local cost-shares) of river restoration and minnow protection efforts over the past several years has injected in the neighborhood of $30 million into the regional economy. The State of New Mexico and various other governmental entities have also provided significant amounts of additional funding in furtherance of protection of the minnow, the river, and the bosque. This funding has not only benefited our economy, it has benefited the river. There are currently over fifty restoration projects in the Middle Rio Grande that are ongoing or in planning stages that are funded or sponsored by federal, state and local governments and other entities. (Tetra Tech, Inc./Alliance for the Rio Grande Heritage, A Framework for a Restoration Vision for the Rio Grande: Hope for a Living River (May 2003), App.D).

Impacts of the Tenth Circuit Ruling on Albuquerque and Other Municipal San Juan-Chama Contractors

The Tenth Circuit decision has provided a common sense interpretation of the terms of the contract that Albuquerque entered into with the United States regarding provision of 48,200 a-f/yr of San Juan-Chama Project water to Albuquerque, when such water is legally available. For Albuquerque to leap to the assumption that its contract was a perpetual guarantee for 48,200 a-f of water every single year forever more, regardless of the circumstances and regardless of the language of its contract, was simply wishful thinking.

In any event, Albuquerque (and other San Juan-Chama contractors) has several options for alleviating the uncertainties in its current contract. It can renegotiate its San Juan-Chama contract with the United States to provide greater certainty. It can also seek congressional action to provide the level of certainty desired in its water contract. Or, it could live with the terms of its contract, with the assurance that the federal government cannot take large amounts of San Juan-Chama Project water to use for the minnow because the San Juan-Chama authorizing legislation expressly requires that “a reasonable amount” of water be delivered to contractors.

A recent poll conducted by University of New Mexico’s Institute for Public Policy found that people ranked use of water for the Rio Grande and riparian areas second only to water for drinking and bathing in importance. Less than 1% of Albuquerque’s San Juan-Chama water will be used for drinking. Most of it will be used for outdoor watering of golf courses, turf and other water-guzzling amenities. Thus, if any San Juan-Chama water were ever to be taken by the federal government and used for the minnow under the Tenth Circuit’s opinion – which would only happen if the New Mexico stakeholders were unable to solve these problems themselves -- it would not affect anyone’s drinking water. Rather, it would be in essence a reallocation of water from golf courses and non-native lawns to endangered species, and the river and bosque on which they depend. Such a result would be consistent with the purpose of the Endangered Species Act. It would also be a proper response to the warning of the impending demise of our river that is being given by our “canary in the coal mine” – the Rio Grande silvery minnow.

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[1] During the drought of the past two years, and under pressure from this litigation, MRGCD has reduced its diversions to the neighborhood of 7.7 a-f/acre, an amount closer to (but still higher than) the amount diverted by other irrigation districts in the state. (See S.S. Papadopulos & Assocs, “Evaluation of the Middle Rio Grande Conservancy District Irrigation System and Measurement Program,” (December 2002) (prepared for the New Mexico Interstate Stream Commission))

[2] At that time, there were virtually no silvery minnows in captivity. The agreed orders entered in the litigation in the summer of 2000 set in motion various actions by the federal agencies and other parties to greatly increase captive populations of silvery minnow in an effort to ensure the existence of at least minimal remnant populations if river drying were to kill off substantial portions of the last silvery minnows remaining in the Rio Grande. It must be noted, however, that the ESA requires protection of species in their native habitat. 16 U.S.C. § 1531(b). While fish tanks might be used to help avoid extinction of a species, they are not a substitute for true conservation and recovery of a species.